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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,773	06/28/2006	Mitsuhiko Sano	403749/TAKADA	3853

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EXAMINER	
SULLIVAN, DEBRA M	

ART UNIT	PAPER NUMBER
3725	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,773	SANO ET AL.	
	Examiner	Art Unit	
	Debra M. Sullivan	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *1-12 and 17-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/28/06 & 1/24/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 1-12 and 17-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 1, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Plocoennik et al (US 2006/0117549). In reference to claim 13, Plocoennik et al discloses an apparatus for controlling materials quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a

material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, and heating correction means, processing correction means and cooling correction means, each of which, to ensure that the qualitative data measured by the material quality sensor will agree with target data, corrects the data settings output from the data settings calculation means to the heating means, the processing means and the cooling means, upstream with respect to the materials quality sensor [See paragraphs 0016-0018]

In reference to claim 14, Plocoennik et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, material quality model computing means for estimating using a material quality model, the quality of the metallic material at the measuring position from actual heating condition, processing conditions, and cooling conditions of the metallic material, materials quality model learning means for comparing data measurements by the materials quality sensor to arithmetic results of the material quality model computing means and learning an error of the materials quality model, and

materials quality model correction means for correcting the materials quality model by correcting the arithmetic results of the materials quality model computing means in accordance with the learning obtained by the materials quality model learning means wherein the data settings calculation means calculates and outputs data setting for each of the heating means, the processing means, and the cooling means, in accordance with as-corrected-material quality data estimates that the materials quality model correction means outputs [See paragraph 0016-0018].

In reference to claim 15, Plocoennik et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, material quality model computing means for estimating using a material quality model, the quality of the metallic material at a materials quality control point located at any position downstream with respect to the materials quality sensor, wherein the data settings calculation means calculates and outputs data settings for each of the heating means, the processing means and the cooling means so that

arithmetic results by the materials quality model computing means will agree with the target data given from the host computer [See paragraph 0016-0018].

In reference to claim 16, Plocoennik et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, and heating correction means, processing correction means and cooling correction means, each of which, to ensure that the quality of the material at a materials quality control point located in any position downstream with respect to the materials quality sensor, will agree with the target data given from the host computer, correct the data settings output from the data settings calculation means to the heating means, the processing means, and the cooling means disposed downstream with respect to the material quality sensor [See paragraphs 0016-0018].

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujioka et al (JP Patent 04-361158). In reference to claim 13, Fujioka et al discloses an apparatus for controlling materials quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, and heating correction means, processing correction means and cooling correction means, each of which, to ensure that the qualitative data measured by the material quality sensor will agree with target data, corrects the data settings output from the data settings calculation means to the heating means, the processing means and the cooling means, upstream with respect to the materials quality sensor [See Abstract].

In reference to claim 14, Fujioka et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic

material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, material quality model computing means for estimating using a material quality model, the quality of the metallic material at the measuring position from actual heating condition, processing conditions, and cooling conditions of the metallic material, materials quality model learning means for comparing data measurements by the materials quality sensor to arithmetic results of the material quality model computing means and learning an error of the materials quality model, and materials quality model correction means for correcting the materials quality model by correcting the arithmetic results of the materials quality model computing means in accordance with the learning obtained by the materials quality model learning means wherein the data settings calculation means calculates and outputs data setting for each of the heating means, the processing means, and the cooling means, in accordance with as-corrected-material quality data estimates that the materials quality model correction means outputs [See Abstract].

In reference to claim 15, Fujioka et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic

material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, material quality model computing means for estimating using a material quality model, the quality of the metallic material at a materials quality control point located at any position downstream with respect to the materials quality sensor, wherein the data settings calculation means calculates and outputs data settings for each of the heating means, the processing means and the cooling means so that arithmetic results by the materials quality model computing means will agree with the target data given from the host computer [See Abstract].

In reference to claim 16, Fujioka et al discloses an apparatus for controlling material quality in a rolling process, the apparatus comprising a means for heating a metallic material, a rolling means for rolling the metallic material and a cooling means for cooling the metallic material, data setting calculation means connected to a manufacturing line for manufacturing a metallic product of desired size and shape, wherein in accordance with information on size and shape of the metallic material, on target size and shape of the product and on composition of the metallic material, the information being given from a host computer, the data settings calculation means calculates and outputs data settings for the heating means, the processing means and the

cooling means, a heating controller, a processing controller and a cooling controller which control a heater, a processor and a cooler based on the settings, a material quality sensor installed in the manufacturing line to measure qualitative data of the metallic material, and heating correction means, processing correction means and cooling correction means, each of which, to ensure that the quality of the material at a materials quality control point located in any position downstream with respect to the materials quality sensor, will agree with the target data given from the host computer, correct the data settings output from the data settings calculation means to the heating means, the processing means, and the cooling means disposed downstream with respect to the material quality sensor [See Abstract].

Pertinent Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP Patent 2003-268428 to Okamura et al discloses the claimed control apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Sullivan whose telephone number is (571) 272-1904. The examiner can normally be reached Monday - Thursday 10am - 8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached at (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Debra M Sullivan/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art Unit 3725